

## ABSTRACT OF THE DISCLOSURE

A motor includes a stator having magnets, a rotor having teeth, a commutator secured to the rotor, and brushes. A coil is wound about each tooth. The commutator is connected to the coils. The brushes slidably contact the commutator. The number of the magnets and the number of the teeth are determined such that the resultant of torque vectors that act on the teeth is zero. For example, the number of the magnet is six, and the number of the teeth is eight. As a result, the rotor is prevented from vibrating.

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